

09/841.314

RECEIVED
CENTRAL FAX CENTER

LINCP103US

AUG 10 2006

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1-6. (Cancelled)

7. (Currently Amended) A welding system, comprising:

a first welding cell comprising at least one welding node having a wireless communications interface; ~~and,~~

at least one other welding cell comprising at least one welding node having a wireless communications interface wherein the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly with each other *via* a frequency adjusting wireless communication protocol; and

at least one factory control that retains weld procedures for the first welding cell and the at least one other welding cell.

8. (Original) The welding system of claim 7 wherein the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly utilizing one of Bluetooth, ConnexRF and point-to-multipoint short-range RF (radio frequency) format.

9. (Previously Presented) The welding system of claim 7 wherein the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly utilizing Bluetooth format *via* at least one of RFComm, OBEX, Service Discovery Protocol, and logical link control and adaptation protocols.

10. (Original) The welding system of claim 7 wherein the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell are one of a power source, a gas controller, a wire feeder, a contact tip, a dresser, a gas mixer, a gas sneezer, a gas controller, a clamp actuator, a robot arm/beam/torch manipulator, a laser seam tracker, a wire drive and gun, a water cooler, a welder, a part handler, a torch travel and a user control.

09/841,314

LINCP103US

11. (Previously Presented) The welding system of claim 7 wherein the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell communicate wirelessly utilizing a format that provides frequency spread spectrum hopping or direct sequence spread spectrum.

12. (Original) The welding system of claim 7 wherein information communicate between the at least one welding node of the first welding cell and the at least one welding node of the at least one other welding cell is at least one of weld procedures, parameters, diagnostic information, error logs, machine metrics, system metrics, specifications, manuals, machine enhancements, files for specific user application and sensor feedback.

13-19. (Cancelled)

20. (Currently Amended) A method for providing wireless communication in a welding system comprising:

generating an RF field around at least one welding node;

generating an RF field around a wireless communications device;

establishing communication between the wireless communications device and the at least one welding node via a frequency adjusting wireless communication protocol;

receiving information via the wireless communications device from the at least one welding node;

transmitting information to the at least one welding node from the wireless communications device; and,

~~at least one of the following acts:~~

~~monitoring wireless communications;~~

determining whether a communications error threshold has been exceeded; and,

~~if a communications error threshold has been exceeded, placing a the at least one welding node into a fail safe condition if the communications error threshold has been exceeded.~~

21. (Cancelled)

09/841,314

LINCP103US

22. (Currently Amended) A method for providing wireless communications in a welding system comprising:

generating an RF field around a first welding node;

generating an RF field around at least one other welding node;

establishing communication between the first welding node and the at least one other welding node *via* a frequency adjusting wireless communication protocol; wherein

the at least one other welding node receives information wirelessly from the first welding node; and,

the at least one other welding node transmits information wirelessly to the first welding node; and

storing information communicated between the first welding node and the at least one other welding node in a central location.

23-24. (Cancelled)

25. (Currently Amended) A wireless system for communicating welding information, comprising:

a first welding node having a wireless communications interface adapted to communicate *via* a wireless signal utilizing a frequency adjusting wireless communication protocol; and,

at least one other welding node having a wireless communications interface adapted for wireless communication with the first welding node *via* the wireless signal; and

a server having a wireless communications interface that maintains information associated with the first welding node and the at least one other welding node.

26. (Currently Amended) A welding system, comprising:

means for a first welding node to wirelessly communicate utilizing a frequency adjusting wireless communication protocol; and,

means for an Nth welding node to wirelessly communicate information with the first welding node wherein the information includes at least one of weld procedures, parameters, diagnostic information, error logs, machine metrics, system metrics, specifications, manuals, machine enhancements, files for specific user application and sensor feedback;

means for monitoring a communications error threshold; and

09/841,314

LINCP103US

means for placing at least one of the first welding node and the Nth welding node in a fail safe condition if the communications error threshold is exceeded.

27. (New) The welding system of claim 7, the at least one factory control transmits at least one of a time of a weld procedure and a change of a weld procedure wirelessly to the first welding cell and the at least one other welding cell.
28. (New) The welding system of claim 7, the at least one factory control can retrieve information from the first welding cell and the at least one other welding cell and initiate an action based upon the retrieved information.
29. (New) The method of claim 20, further comprising: continuing a weld process if a communications error has not been exceeded.
30. (New) The wireless system of claim 25, the maintained information is at least one of weld procedures, parameters, diagnostic information, error logs, machine metrics, system metrics, specifications, manuals, machine enhancements, files for specific user application and sensor feedback.
31. (New) The wireless system of claim 25, the server is a repository of weld procedures for a factory.